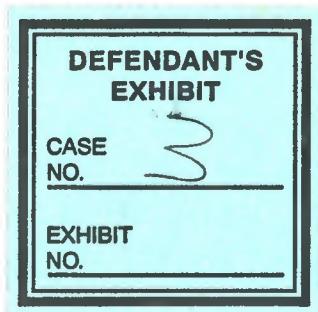


# Exhibit A



IN THE UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION

GEORGIA FIREFIGHTERS' PENSION FUND, Individually and on Behalf of All Others Similarly Situated,	:	Civil Action No. 4:20-cv-00576
	:	
	:	
Plaintiffs,	:	
	:	
	:	
v.	:	
	:	
	:	
ANADARKO PETROLEUM CORPORATION, R.A. WALKER, ROBERT G. GWIN, ROBERT P. DANIELS, and ERNEST A. LEYENDECKER, III,	:	
	:	
Defendants.	:	
	:	

**SUR-REPLY REPORT OF ALLEN FERRELL, PH.D.**  
**CONFIDENTIAL**  
**June 12, 2024**

## I. Background

1. On December 10, 2021, I submitted an expert report in this matter (“Ferrell Report”).<sup>1</sup> In the Ferrell Report, I formed the following two opinions regarding price impact:<sup>2</sup>

- On 18 out of the 21 alleged misstatement dates identified in the Complaint, there was no statistically significant price increase. On the remaining three alleged misstatement dates, the Shenandoah disclosures on these dates were stale and, as such, assuming markets are efficient, I would not expect Anadarko’s stock price to react to these Shenandoah disclosures. Moreover, on these three dates, market commentators attributed Anadarko’s stock price increase to factors unrelated to Shenandoah.
- There is no reliable economic basis to conclude that the alleged Anadarko May 2, 2017 corrective disclosures about Shenandoah had a price impact on Anadarko’s stock price.<sup>3</sup>

2. On February 3, 2022, Plaintiffs submitted the expert rebuttal report of Bjorn Steinholt, CFA dated February 2, 2022 (“Steinholt Rebuttal Report”).<sup>4</sup> In that report, Mr. Steinholt states that he was asked to “review and discuss” the Ferrell Report.<sup>5</sup> Mr. Steinholt claims that I “did not actually perform an event analysis to quantify the impact, if any, of the Corrective Disclosure on Anadarko’s stock price on May 3, 2017.”<sup>6,7</sup> Mr. Steinholt then contends that I “ignored economic evidence that clearly demonstrates price impact relating to [the Corrective Disclosure],” including the following:<sup>8</sup>

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<sup>1</sup> The Ferrell Report provides information on my qualifications and defines capitalized terms. My updated CV is attached hereto as **Appendix 1**.

<sup>2</sup> Ferrell Report, ¶ 17.

<sup>3</sup> In the Ferrell Report, I explained that Anadarko disclosed three pieces of information after market close on May 2, 2017: “(1) that Shen-6 was a dry hole; (2) that Anadarko was suspending appraisal activity at Shenandoah; and (3) that Anadarko was taking an impairment charge related to the Shenandoah project,” which I understand Plaintiffs allege as the corrective disclosures. Ferrell Report, ¶ 54.

<sup>4</sup> Mr. Steinholt previously submitted a report dated October 1, 2021 in this matter (“Steinholt Report”).

<sup>5</sup> Steinholt Rebuttal Report, ¶ 3.

<sup>6</sup> Steinholt Rebuttal Report, ¶ 42.

<sup>7</sup> The Steinholt Rebuttal Report states that “[t]he Corrective Disclosure in this case is Anadarko’s suspension of further appraisal work on Shenandoah due to lack of commercial viability, resulting in an impairment charge of \$467 million and the write-off of \$435 million of exploratory well costs, totaling \$902 million.” Steinholt Rebuttal Report ¶ 11. To avoid confusion, I use Mr. Steinholt’s “Corrective Disclosure” terminology in this report to refer to the alleged corrective disclosures.

<sup>8</sup> Steinholt Rebuttal Report, ¶ 7.

- “The suspension of Shenandoah and corresponding \$902 million in write-offs was new, economically material information that, in an efficient market, would be expected to significantly impact Anadarko’s stock price.
- Analyst downgrades and price impact for Shenandoah partner Cobalt’s stock price relating to Anadarko’s Corrective Disclosure.
- Anadarko’s stock price declined 4.1% in after-market trading on May 2, 2017, after the Corrective Disclosure, but before the lone confounding factor [news related to the Firestone, Colorado fire] identified by [me].
- An event study that specifically controls for the confounding factor identified by [me] demonstrates that Anadarko’s stock price decline on May 3, 2017, was statistically significant, and, thereby, affirmatively demonstrates price impact.”

## II. Assignment and Summary of Opinions

3. I have been asked by Cravath, Swaine & Moore LLP, counsel for Defendants, to review and respond to new price impact claims in the Steinholt Rebuttal Report that were not previously presented. In performing this work, I have been assisted by Compass Lexecon staff. Based on my review of the materials listed in **Appendix 2**, I stand by my original opinion that there is no reliable economic basis to conclude that the alleged Corrective Disclosure about Shenandoah had a price impact on Anadarko’s stock and Mr. Steinholt’s criticisms of the Ferrell Report are wrong. The bases for this conclusion are as follows:

- a. My opinion in the Ferrell Report that there is no reliable economic basis to conclude that the alleged Corrective Disclosure about Shenandoah had a price impact on Anadarko’s stock is based on multiple event studies I conducted on the stock prices of Shenandoah partners Anadarko, ConocoPhillips, and Cobalt, and Colorado oil and gas operators Noble Energy, PDC Energy, SRC Energy, and Extraction Oil & Gas. Those event studies, and the other economic evidence I examined, showed that Anadarko’s and ConocoPhillips’s stock price did not react to any of the Shenandoah disclosures made between May 2 and May 8, 2017, but that each of the Colorado operators I analyzed, like Anadarko, did see a statistically significant stock price decline on May 3, 2017 – after the news that fire officials concluded gas seeping from an Anadarko well was the cause of the fatal explosion in Firestone, Colorado and resulting regulatory scrutiny and uncertainty.
- b. Mr. Steinholt’s claim that the “\$902 million in write-offs was new, economically material information” that “would be expected to significantly impact Anadarko’s stock price” is wrong and ignores basic finance. Mr. Steinholt conflates sunk (accounting) costs (i.e., previous cash outlays as opposed to future cash flows) with the market value of Shenandoah embedded in Anadarko’s stock price on

May 2, 2017. Sunk costs do not determine a company's value (and, in turn, stock price); future cash flows do.

- c. Mr. Steinholt's claim that ConocoPhillips is not the appropriate Shenandoah partner to analyze ignores the companies' near-identical ownership interests in the Shenandoah project and basic finance.
- d. Mr. Steinholt's claim that Cobalt is the more relevant Shenandoah partner to analyze is flawed because, unlike Anadarko, Cobalt was financially distressed and had only 1/189th the market capitalization of Anadarko.
- e. Mr. Steinholt's conclusion from Anadarko's after-market trading on May 2, 2017 after the alleged Shenandoah disclosures but before the "lone confounding factor" I identified (*i.e.*, the Firestone, Colorado news) is misleading and flawed. Mr. Steinholt has not shown that the after-market for Anadarko's stock is efficient, as would be required to draw any reliable conclusions from Anadarko's after-hours trading. This conclusion is also flawed because it is based on a single *Bloomberg* article and not an event study analysis of after-market trading, is based on an incorrect timeline of after-market disclosures, and ignores that ConocoPhillips's and Cobalt's after-market trading was relatively flat while the Colorado operators saw price declines after the Firestone, Colorado news broke.
- f. Mr. Steinholt's claim that his new event study controls for the news related to the Firestone, Colorado fire is misleading and flawed. Mr. Steinholt's new event study does not control for industry-wide factors because he inexplicably removed the industry index from his initial event study. As I demonstrated in my opening report, when this index is added back in, the result shows precisely the opposite of Mr. Steinholt's conclusion. The event study is also flawed because the Firestone, Colorado fire was a one-time event and cannot be controlled for with the historical stock price data of the Colorado operators one-year prior to the event date.

4. I elaborate on the above bases in the rest of this report.

**III. My Opinion That There Is No Reliable Economic Basis To Conclude That the Alleged Corrective Disclosure About Shenandoah Had a Price Impact On Anadarko's Stock Price Remains Unchanged, and Mr. Steinholt's Criticisms of My Report Are Wrong.**

5. As I explained in the Ferrell Report, there is no reliable economic basis to conclude that the alleged Corrective Disclosure about Shenandoah, released after market close on May 2, 2017, had a price impact on Anadarko's stock price.<sup>9</sup> Nothing in the Steinholt Rebuttal Report changes my conclusion. I explain below the bases for this conclusion.

**A. Multiple Event Studies I Conducted on the Stock Prices of Anadarko, Its Shenandoah Partners, and Other Colorado Operators Are Consistent With the Firestone, Colorado News – Not Anadarko's Shenandoah Disclosures – Impacting Anadarko's Stock Price on May 3, 2017.**

6. Mr. Steinholt states that I "did not actually perform an event analysis to quantify the impact, if any, of the Corrective Disclosure on Anadarko's stock price on May 3, 2017."<sup>10</sup> However, this claim is baffling and false. I clearly *did* perform an event study of Anadarko and found that Anadarko's stock had a statistically significant price decline on May 3, 2017.<sup>11</sup> As I explained in the Ferrell Report, when multiple pieces of potentially value-relevant news are released contemporaneously – as was the case after market close on May 2, 2017<sup>12</sup> – an event study on Anadarko alone on that date cannot attribute the price impact to one particular cause.<sup>13</sup> Thus, in addition to examining other economic evidence, I conducted multiple event studies on the stock prices of several other companies, as any value-relevant Shenandoah disclosures should

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<sup>9</sup> Ferrell Report, ¶ 17.

<sup>10</sup> Steinholt Rebuttal Report, ¶ 42.

<sup>11</sup> Ferrell Report Appendix D. As explained in the Ferrell Report, I used the same methodology as Mr. Steinholt with one modification to his oil industry index, which is to remove ConocoPhillips to exclude the potential effect of the alleged fraud on the industry index returns. However, the results of my event study are qualitatively similar, and therefore, the conclusions I draw are the same regardless of whether ConocoPhillips is included or excluded from the industry index.

<sup>12</sup> I explained in the Ferrell Report that, after market close on May 2, 2017, in addition to the news about Shenandoah, Anadarko announced soft production guidance and there was news related to the Firestone, Colorado fire that was disclosed. Ferrell Report, ¶¶ 64-67.

<sup>13</sup> I explained in the Ferrell Report that "when there are multiple pieces of information disclosed contemporaneously on a day when an event study finds a statistically significant price movement[,]...an event study analysis alone cannot determine which piece of information was value-relevant. Moreover, even when there are multiple pieces of value-relevant information, an event study analysis cannot parse out the price impact of the multiple pieces of information." Ferrell Report, ¶ 29.

also affect the other Shenandoah Partners (i.e., ConocoPhillips and Cobalt) and value-relevant Firestone, Colorado fire disclosures should also affect the other Colorado operators (i.e., Noble Energy, PDC Energy, SRC Energy, and Extraction Oil & Gas).<sup>14</sup> Based on the results of these multiple event studies, I determined that there is no reliable economic basis to conclude that the alleged Corrective Disclosure about Shenandoah had a price impact on Anadarko's stock on May 3, 2017.<sup>15</sup>

**B. Mr. Steinholt Conflates Sunk Costs with the Market Value of Shenandoah Embedded in Anadarko's Stock Price on May 2, 2017.**

7. Mr. Steinholt claims that, on May 2, 2017, Anadarko "suspended further appraisal work on Shenandoah, resulting in writing off the Shenandoah asset and expensing all drilling costs, totaling \$902 million in write-offs," which "demonstrates that Anadarko itself (prior to the write-off) had assigned a substantial economic value to the Shenandoah asset, which logically would have had some negative impact on Anadarko's stock price during the Class Period if the project was suspended and written off (as was the case at the end of the Class Period)."<sup>16</sup> This is not evidence of price impact. In fact, Mr. Steinholt's claim that the \$902 million in write-offs signals "a substantial economic value to the Shenandoah asset" is misleading and ignores basic finance.

8. The \$902 million in write-offs Mr. Steinholt cites are accounting costs comprised of two pieces.<sup>17</sup> First, \$467 million is an impairment of unproved property balance that "originated from the purchase price allocated to the Gulf of Mexico exploration projects from the acquisition of Kerr-McGee Corporation in 2006."<sup>18</sup> The purchase price allocation was an accounting entry to record the acquired assets (including Shenandoah) based on their estimated

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<sup>14</sup> Ferrell Report, ¶¶ 16-18, 28, 29, 32, 35 & Appendices C & D.

<sup>15</sup> Ferrell Report, ¶ 17.

<sup>16</sup> Steinholt Rebuttal Report, ¶ 8.

<sup>17</sup> Mr. Steinholt incorrectly assumes that there should be a relationship between the magnitude of ConocoPhillips's sunk costs and the magnitude of Anadarko's sunk costs. For example, he compares the \$467 million impairment taken by Anadarko to the \$51 million impairment taken by ConocoPhillips. Steinholt Rebuttal Report, ¶ 27. However, he fails to consider that these amounts are not comparable as Anadarko's impairment "originated from the purchase price allocated to the Gulf of Mexico exploration projects from the acquisition of Kerr-McGee Corporation in 2006," which would not be the case for ConocoPhillips. Anadarko Petroleum Corporation, Form 10-Q, March 31, 2017, p. 37.

<sup>18</sup> Anadarko Petroleum Corporation Form 10-Q, March 31, 2017, p. 37.

value in 2006.<sup>19</sup> Thus, this component of the write-off is related to an Anadarko-specific acquisition more than a decade earlier and would not be expected to affect its other partners in Shenandoah, such as ConocoPhillips. Second, \$435 million is related to capitalized exploratory well costs,<sup>20</sup> which means that the cash outlay was in the past but, for accounting purposes, the expenses have been spread over time subsequent to the cash outlay.<sup>21</sup> When Anadarko suspended further appraisal activities in Shenandoah, it “determined that the Shenandoah project no longer satisfies the *accounting requirements* for the continued capitalization of the exploratory well costs.” (emphasis added).<sup>22</sup>

9. Given the above, these \$902 million in write-offs are what economists call “sunk costs.” Sunk costs are past cash outlays – i.e., the cash was spent to drill the wells and those outflows cannot be reversed.<sup>23</sup> Mr. Steinholt conflates sunk costs related to Shenandoah with the value of Shenandoah. The value of Shenandoah (like any asset) is equal to the “the present value of *future* cash flows, not sunk costs” (emphasis added).<sup>24</sup> This has implications for the value of Anadarko, as the value of Anadarko is equal to the value of all of its assets, including Shenandoah. Given the above, since the \$902 million write-off is a sunk cost that does not affect

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<sup>19</sup> FASB Statement of Financial Accounting Standards No. 141: Business Combinations, ¶ 35.

<sup>20</sup> Anadarko Petroleum Corporation Form 10-Q, March 31, 2017, p. 37.

<sup>21</sup> Anadarko Petroleum Corporation Form 10-K, December 31, 2016, p. 76 (“Under the successful efforts method of accounting, exploratory drilling costs are initially capitalized pending the determination of proved reserves. If proved reserves are found, drilling costs remain capitalized and are classified as proved properties...If management determines that future appraisal drilling or development activities are unlikely to occur, associated suspended exploratory well costs are expensed. Therefore, at any point in time, the Company may have capitalized costs on its Consolidated Balance Sheets associated with exploratory wells that may be charged to exploration expense in future periods.”)

<sup>22</sup> Anadarko Petroleum Corporation Form 10-Q, March 31, 2017, pp. 13, 37.

<sup>23</sup> See, e.g., N. Mankiw, 2016, *Principles of Economics*, 8<sup>th</sup> ed. (Cengage Learning), p. 275 (“Economists say that a cost is a sunk cost when it has already been committed and cannot be recovered.”) and R. Brealey, S. Myers, and F. Allen, 2017, *Principles of Corporate Finance*, 12<sup>th</sup> ed. (McGraw-Hill/Irwin), p. 137 (“Sunk costs are like spilled milk: They are past and irreversible outflows.”).

<sup>24</sup> P. Asquith, and L. Weiss, 2019, *Lessons in Corporate Finance*, 2<sup>nd</sup> ed. (Wiley), p. 365. See also *id.* pp. 363-364 (“What are sunk costs? They reflect cash that was spent in the past...Sunk costs are not included in project valuations...Investment analysis is always forward-looking.”); T. Koller, M. Goedhart, and D. Wessels, 2020, *Valuation*, 7<sup>th</sup> ed. (Wiley), p. 370 (“... a company’s value equals the present value of future cash flows, not sunk costs.”); and S. Ross, R. Westerfield, and B. Jordan, 2015, *Fundamentals of Corporate Finance*, 11<sup>th</sup> ed. (McGraw Hill), p. 351 (“Suppose we are working on a preliminary discounted cash flow analysis...We carefully identify the relevant cash flows, avoiding such things as sunk costs...”).

the value of Shenandoah, then regardless of its magnitude, the Shenandoah write-off would not be expected to affect the value of Anadarko.

10. In contrast to *past* cash outlays related to Shenandoah which are irreversible and do not affect the Company's value, Anadarko faced a reduction in *future* cash flows as a result of the Firestone, Colorado fire. Not only are these future costs limited to direct costs such as remediations costs, which one analyst estimated at \$140 million for "plugging and abandoning" 14,000 existing wells, but it also includes "[t]he larger risk [that] Colorado [would] introduce a setback rule which precludes new drilling."<sup>25</sup>

11. This regulatory risk could have a large impact on Anadarko's operations in the DJ Basin (which includes Colorado), which comprised approximately a quarter of Anadarko's net asset value at the time.<sup>26</sup> Indeed, at the earnings call on May 3, 2017, a J.P. Morgan research analyst recognized that Anadarko's stock price drop (and corresponding market capitalization drop) before the market open reflected the reaction of the market to the Colorado regulatory risk:

**Q [Arun Jayaram, J.P. Morgan]:** "Al, the market has shaved a couple billion dollars of equity value as the market has priced in some impacts to your DJ Basin, perhaps, inventory. What are your thoughts on the magnitude of this reaction, and what do you see -- I know it's early on in terms of the investigation -- as a bigger picture of impacts to the company and the industry in the State of Colorado?"

**A [R.A. Walker, Chairman & CEO]:** "Well, I think we, like everybody else, are dealing with the results of the preliminary investigation as well as the orders that

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<sup>25</sup> "Colorado is not Macondo," Credit Suisse, May 3, 2017. *See also*, "Results Overshadowed by a Colorado Home Explosion," Barclays, May 4, 2017 ("We believe the near-term impact including costs related to inspections, and risk to value of production is modest. The greater risk is to future drilling opportunities.") and "1Q17: Headwinds Accumulate; Move to EW," Morgan Stanley, May 3, 2017 ("The broader and potentially larger impact, is the potential Colorado energy regulatory impact is also unclear, yet more likely in some degree.").

<sup>26</sup> The Denver-Julesburg ("DJ") Basin is a large geological formation in northeastern Colorado and southeastern Wyoming, extending into Nebraska, South Dakota and Kansas. <https://www.chevron.com/newsroom/2023/q3/explainer-what-is-the-dj-basin> (last accessed June 11, 2024). *See also*, "1Q17: Headwinds Accumulate; Move to EW," Morgan Stanley, May 3, 2017 ("We estimate ~25% of APC's net asset value (4,000 locations) is in the DJ Basin."); "Colorado is not Macondo," Credit Suisse, May 3, 2017, Figure 1 (showing that DJ Basin comprised 24% of Anadarko's Enterprise Value); "Americas Energy: Oil & Gas - E&P: DJ Basin: State of CO mandates flowline integrity tests; potential impact on APC/NBL/PDCE/XOG," Goldman Sachs, May 4, 2017, p. 1 ("the DJ Basin represents 29% ... of our target price for APC ....") & Exhibit 1 (showing "Total DJ Basin" for "APC" of 29%).

followed from the governor and the regulators. So I think to go beyond that at this point would be kind of difficult. Investors are certainly left to make their decisions based on the information they have...I'm not really sure I'm in a position to say or answer to the question you're asking me specifically just because again we're dealing with this on a real-time basis. It's very fluid and the orders came out from the governor yesterday.<sup>27</sup>

12. Similarly, in a May 3, 2017 report that does not mention the \$902 million in write-offs related to Shenandoah, Morgan Stanley lowered its price target solely as a result of the Firestone, Colorado fire:

We lower our rating to EW from OW and lower our price target by 17% to \$74 from \$89 as the potential for increased Colorado regulatory scrutiny provides a significant near-term overhang for shares, particularly given the challenging energy environment and consensus negative sector outlook. Our adjusted PT primarily reflects increased risking of DJ locations and a correspondingly lower out-year rig count due to shallower inventory in our NAV estimate. It also assumes lower multiple expansion due to potential regulatory headwinds and overhang. We are not suggesting any view on culpability or actual regulatory backlash, yet we believe legal or regulatory overhangs will likely compress near-term valuation and, as in the past, can linger longer than expectations.<sup>28</sup>

13. If one applied Morgan Stanley's 17% reduction in its price target to Anadarko's market capitalization on May 2, 2017 of \$31.5 billion,<sup>29</sup> Morgan Stanley's assessment of the impact of the Colorado regulatory risk would be \$5 billion. Thus, the impact on Anadarko's value of the Firestone, Colorado fire could go well-beyond the \$140 million remediation costs alone.

14. Nevertheless, to the extent that these \$902 million in accounting write-offs signaled that Anadarko would not realize the value of Shenandoah, any impact of the write-off would be limited to the loss of the market's assessment of the value of Shenandoah *prior* to the announcement. But, as I explained in the Ferrell Report – and a point not challenged by Mr. Steinholt – some analysts assigned a “low to zero” value to Shenandoah given its uncertainty.<sup>30</sup>

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<sup>27</sup> “Q1 2017 Anadarko Petroleum Corp Earnings Call – Final,” CQ FD Disclosure, May 3, 2017.

<sup>28</sup> “1Q17: Headwinds Accumulate; Move to EW,” Morgan Stanley, May 3, 2017.

<sup>29</sup> Steinholt Rebuttal Report, ¶ 22. Note that Anadarko's market capitalization on May 2, 2017 was \$31.4 billion per ©2024 Center for Research in Security Prices (CRSP), The University of Chicago Booth School of Business. To avoid confusion, however, for purposes of this report, I use Mr. Steinholt's \$31.5 billion market capitalization for Anadarko.

<sup>30</sup> Ferrell Report, ¶ 69.

Therefore, to the extent that the write-off signaled the loss of this value, because the value of Shenandoah embedded in Anadarko's stock *prior* to the May 2 announcement would have been "low to zero," any loss thereof also would have been "low to zero."

**C. Mr. Steinholt's Claim that ConocoPhillips Is Not the Appropriate Shenandoah Partner to Analyze Ignores the Companies' Near-Identical Stakes in Shenandoah and Basic Finance.**

15. Mr. Steinholt claims that, because ConocoPhillips is a much larger company compared to Anadarko, the valuation effect of the news about Shenandoah would have to be much larger before one would observe a statistically significant impact on ConocoPhillips's stock price.<sup>31</sup> However, Mr. Steinholt claims that Shenandoah could be valued as high as \$5 per share.<sup>32</sup> Assuming *arguendo* that Mr. Steinholt was correct, then that would imply Shenandoah would be worth \$2.8 billion to Anadarko.<sup>33</sup> After adjusting for ConocoPhillips's slightly smaller ownership stake in Shenandoah (i.e., ConocoPhillips's 30% vs. Anadarko's 33%),<sup>34</sup> Shenandoah's value to ConocoPhillips would have been \$2.5 billion.<sup>35</sup> This implies that we

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<sup>31</sup> Steinholt Rebuttal Report, ¶¶ 28-29.

<sup>32</sup> Mr. Steinholt states that this is an estimate of the fully sanctioned value of Shenandoah. Steinholt Rebuttal Report, ¶ 23.

<sup>33</sup> \$2.8 billion = \$5 per share × 560.3 million Anadarko shares outstanding as of April 19, 2017. See Anadarko Petroleum Corporation Form 10-Q, March 31, 2017, cover page.

<sup>34</sup> Mr. Steinholt claims that "[w]hile ConocoPhillips' working interest (30%) was almost as high as that of Anadarko (33%), Anadarko had an operating interest and substantial control over the project, which resulted in a 'control premium' *i.e.*, greater value as a result of being able to make decisions in line with one's investment objective." Steinholt Rebuttal Report, ¶ 27. A control premium is premised on the higher value of a controlling share when the controller uses its voting power to secure benefits for itself that would not be available to other shareholders (i.e., "private benefits from control"). See, *e.g.*, M. Barclay and C. Holderness, 1989, "Private Benefits From Control of Public Corporations," *Journal of Financial Economics*, Vol. 25, 371-395 & A. Dyck and L. Zingales, 2004, "Private Benefits of Control: An International Comparison," *Journal of Finance*, Vol. 59, 537-600. However, Mr. Steinholt does not provide any evidence that Anadarko had any private benefits from control. Contrary to Mr. Steinholt's claim, in fact, the partners would share the costs and, "[a]fter royalties are paid...share in production revenues...based on [their] percentage of working interest owned." Schlumberger Oilfield Glossary, [https://glossary.oilfield.slb.com/en/terms/w/working\\_interest](https://glossary.oilfield.slb.com/en/terms/w/working_interest) (last accessed June 11, 2024). Because Anadarko and ConocoPhillips's cash inflows and outflows would be in proportion to their working interest percentage, there is no reason to expect that Anadarko would have any private benefits from control and, therefore, command a control premium.

<sup>35</sup> \$2.5 billion = \$2.8 billion × (30% / 33%). ConocoPhillips's stake was 0.91 as large as Anadarko's stake (or 30% divided by 33%).

should have observed a 4.4% price decline for ConocoPhillips,<sup>36</sup> which would have been statistically significant.<sup>37</sup> However, ConocoPhillips's stock price movement was *not* statistically significant, which is further evidence of the lack of price impact.<sup>38</sup>

16. Furthermore, Mr. Steinholt incorrectly claims that ConocoPhillips's announcement in July 2015 (i.e., 21 months prior to the alleged Corrective Disclosure) that it intended to reduce deepwater spending made Shenandoah "not as important to ConocoPhillips as to the operator Anadarko."<sup>39</sup> Mr. Steinholt's statement implies that an asset being "not as important" would somehow lead to a discounted price for the company's share in that asset. There is no economic basis for this assertion by Mr. Steinholt. First, the value of ConocoPhillips is equal to the sum of the value of all of its assets, which includes Shenandoah. Just like any asset, the value of Shenandoah is based on the present value of Shenandoah's expected future cash flows.<sup>40</sup> Mr. Steinholt does not explain, let alone establish, that ConocoPhillips's decision to exit deepwater exploration has any impact on Shenandoah's expected future cash flows. Second, there is also no reason to assume that ConocoPhillips was planning on selling its share in Shenandoah at fire sale prices. In fact, ConocoPhillips stated publicly that it planned to maintain its investment in Shenandoah and would consider selling its stake only if it could receive "full value" in return.<sup>41</sup> I also reviewed ConocoPhillips analyst reports from May 2 to May 5, 2017 and I did not find any analysts stating that the impact of Shenandoah on ConocoPhillips was

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<sup>36</sup> 4.4% = \$2.5 billion / ConocoPhillips's market capitalization of \$57.8 billion on May 2, 2017 per ©2024 Center for Research in Security Prices (CRSP), The University of Chicago Booth School of Business.

<sup>37</sup> Mr. Steinholt states that, "for information to have a statistically significant impact on ConocoPhillips' stock price ... the new information would have to cause ConocoPhillips' stock price to change by at least 2.18%." Steinholt Rebuttal Report, ¶ 28.

<sup>38</sup> Ferrell Report, Tables 2, 3 & 4. On a cumulative basis, the abnormal return on May 2, 3, and 5 is -0.64%  $(= (1 - 0.75\%) \times (1 + 0.71\%) \times (1 - 0.59\%) - 1)$  and not statistically significant with a t-statistic of -0.33  $(= (-0.68 + 0.64 - 0.53) / \text{sqrt}(3))$ .

<sup>39</sup> Steinholt Rebuttal Report, ¶ 27 & "ConocoPhillips Announces Dividend Increase and Reductions in Future Deepwater Exploration Spending," *Business Wire*, July 16, 2015.

<sup>40</sup> See, e.g., T. Koller, M. Goedhart, and D. Wessels, 2020, *Valuation*, 7<sup>th</sup> ed. (Wiley), p. 370 ("... a company's value equals the present value of future cash flows, not sunk costs.").

<sup>41</sup> "Q3 2015 ConocoPhillips Earnings Call – Final," *CQ FD Disclosure*, October 29, 2015 ("We're willing to stay in our discoveries if that's what maximizes the value. But we haven't made a commitment to exit deepwater *per se*... but if we saw full value for those assets then we'd certainly consider that.").

muted because of its exit from deepwater exploration.<sup>42</sup> Given the above, there is no reliable economic basis to expect that ConocoPhillips's decision to exit deepwater exploration would have any impact on the value of Shenandoah to ConocoPhillips.

17. Mr. Steinholt also claims that ConocoPhillips is not a proper comparable because its disclosure on May 2, 2017 regarding Shenandoah was limited to the disclosure of a \$101 million dry-hole expense and does not include the news of the suspension of appraisal activity in Shenandoah.<sup>43</sup> Mr. Steinholt ignores that, in addition to the \$101 million dry-hole expense on May 2, 2017, ConocoPhillips disclosed after market close on May 4, 2017, an additional pre-tax dry hole expense of \$242 million and a pre-tax expense of \$51 million for leasehold improvement.<sup>44</sup> ConocoPhillips's abnormal return on May 2 and 5, 2017 are individually and cumulatively not statistically significant.<sup>45</sup> The lack of price movement in ConocoPhillips stock is also consistent with such expenses being sunk costs.

18. Finally, Anadarko included ConocoPhillips as part of its "peer group" with which it compared its stock price performance in its Forms 10-K throughout the Class Period.<sup>46</sup>

19. Given the above and contrary to Mr. Steinholt's claims, analyzing ConocoPhillips's stock price movement following the alleged corrective disclosures is probative of the price impact on Anadarko of those same disclosures.

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<sup>42</sup> I reviewed 30 reports on ConocoPhillips available through Capital IQ, FactSet and LSEG Workplace (Refinitiv/Eikon) that were published on May 2-5, 2017. These sources did not list any reports on ConocoPhillips on May 6-7, 2017.

<sup>43</sup> Steinholt Rebuttal Report, ¶¶ 21-22.

<sup>44</sup> "ConocoPhillips Provides Update to First-Quarter 2017 Results Based on Subsequent Partner Disclosures and Information," *Business Wire*, May 4, 2017 (4:30 PM).

<sup>45</sup> Ferrell Report, Table 2 (showing an abnormal return on May 2, 2017 of -0.75% with a t-statistic of -0.68) & Table 4 (showing an abnormal return on May 5, 2017 of -0.59% with a t-statistic of -0.53). On a cumulative basis, the abnormal return on May 2 and 5, 2017 is -1.34%( $(1 - 0.75\%) \times (1 + 0.71\%) - 1$ ) and not statistically significant with a t-statistic of -0.86( $(-0.68 - 0.53) / \sqrt{2}$ )).

<sup>46</sup> See Anadarko Petroleum Corporation, Form 10-K, December 31, 2014, p. 47 & Anadarko Petroleum Corporation, Form 10-K, December 31, 2016, p. 51. See also, Deposition of Bjorn Steinholt, November 17, 2021 ("Steinholt Dep. Tr."), 15:5-8 (acknowledging that ConocoPhillips was mentioned as an Anadarko peer.)

**D. Cobalt Is Not a Proper Comparator Because It Was Financially Distressed and Had Only a Small Fraction of the Market Capitalization of Anadarko.**

20. Mr. Steinholt argues that, “[i]n contrast to ConocoPhillips, a more relevant Shenandoah partner to analyze is Cobalt.”<sup>47</sup> Even if one were to accept Mr. Steinholt’s claim, the economic evidence demonstrates that Cobalt’s residual price decline on May 3, 2017 of 11.26% following the alleged Corrective Disclosure does not accurately reflect the value of the Shenandoah news. As I explained in the Ferrell Report, leading up to May 2, 2017, Cobalt was experiencing (a) near-term liquidity constraints, (b) was at risk of being delisted from the New York Stock Exchange because the average closing price of its common stock had fallen below \$1.00 per share over a period of 30 consecutive days, (c) restructured its debt giving noteholders about 50 cents on the dollar for their old notes, and (d) its auditor stated in Cobalt’s Form 10-K filed on March 14, 2017 that “[t]he Company has near-term liquidity constraints that raises substantial doubt about its ability to continue as a going concern.”<sup>48</sup> Consistent with this, Mr. Steinholt acknowledges that Cobalt, at the time, was in financial distress.<sup>49</sup> As documented in the academic literature, stock prices of financially distressed firms are more risky than safe stocks, they are more sensitive to market movements (i.e., higher market betas), and their stock returns are “highly volatile.”<sup>50</sup> In other words, the returns of financially distressed stocks are affected differently than stocks of firms that are not in financial distress. Since Anadarko was not in financial distress at the time, Cobalt’s price movement on May 3, 2017 is not reflective of the price impact of the alleged corrective disclosures concerning Shenandoah on Anadarko.

21. Moreover, an 11.26% abnormal return for Cobalt translates to \$0.04 per share and, even assuming it reflects the loss of the value of Shenandoah, implies corresponding loss to

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<sup>47</sup> Steinholt Rebuttal Report, ¶ 31.

<sup>48</sup> Ferrell Report, ¶ 58.

<sup>49</sup> Steinholt Rebuttal Report, ¶ 31.

<sup>50</sup> J. Campbell, J. Hilscher, and J. Szilagyi, 2011, “Predicting Financial Distress and the Performance of Distressed Stocks,” *Journal of Investment Management*, Vol. 9, 1-21, p. 4 (“Volatility (SIGMA) is a measure of the stock’s standard deviation over the previous three months. Not surprisingly, distressed firms’ stocks returns are highly volatile.”), p. 10 (“As expected, distressed stocks are more risky than safe stocks.”) & p. 17 (“We find that distressed stocks have significantly underperformed the S&P 500 and that they are risky—they have high levels of volatility and high market betas.”).

Anadarko's market capitalization of \$31 million.<sup>51</sup> The associated price decline would have been only 0.1% of Anadarko's market capitalization as of May 2, 2017 of \$31.5 billion.<sup>52</sup> A 0.1% stock price decline would *not* be statistically significant. This is further evidence of the "low to zero" value of Shenandoah and further buttresses my opinion of the lack of price impact.<sup>53</sup>

22. Lastly, in contrast to ConocoPhillips, Anadarko did not include Cobalt as part of its "peer group" with which it compared its stock price performance in its Forms 10-K throughout the Class Period. A criteria Anadarko appears to use to identify members of its "peer group" is the company's relative size.<sup>54</sup> As **Figure 1** shows, as of May 2, 2017, Cobalt's market capitalization is substantially smaller than the market capitalization of Anadarko and ConocoPhillips.

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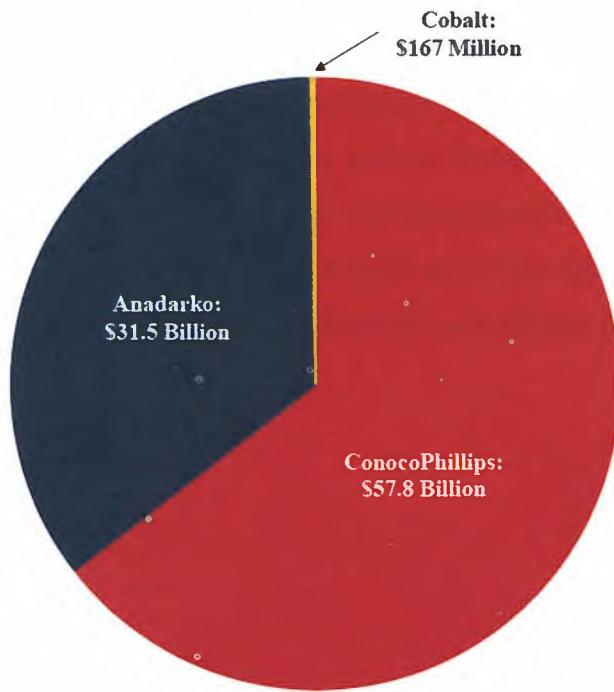
<sup>51</sup> Cobalt's market capitalization decline is \$18.8 million ( $= -11.26\% \text{ Cobalt's abnormal return on May 3, 2017} \times \$167 \text{ million Cobalt's market capitalization on May 2, 2017}$ ). Ferrell Report Table 3. Adjusting for the difference between Cobalt's 20% working interest in Shenandoah and Anadarko's 33% working interest, this implies a market capitalization impact on Anadarko of \$31.0 million ( $= \$18.8 \text{ million} \times (33\% / 20\%)$ ).

<sup>52</sup>  $0.1\% = \$31.0 \text{ million} / \$31.5 \text{ billion market capitalization}$ . Steinholt Rebuttal Report, ¶ 22.

<sup>53</sup> *See supra* ¶ 14.

<sup>54</sup> In its 2016 Form 10-K, Anadarko noted that Murphy Oil was removed from the 2016 peer group "due to it being low in relative size," and Cobalt is much smaller than Murphy Oil. According to Capital IQ data, as of December 31, 2016, Murphy Oil had a market capitalization of \$5.4 billion while Cobalt had a market capitalization of \$537 million – i.e., 10% of Murphy Oil's size. *See* Anadarko Petroleum Corporation, Form 10-K, December 31, 2014, p. 47 & Anadarko Petroleum Corporation, Form 10-K, December 31, 2016, p. 51.

**Figure 1**  
**Anadarko, ConocoPhillips, and Cobalt**  
**Market Capitalization on May 2, 2017**



Sources: Anadarko market capitalization per Steinholt Report, ¶ 22; ConocoPhillips and Cobalt market capitalization per ©2024 Center for Research in Security Prices (CRSP). The University of Chicago Booth School of Business.

23. Given the above, contrary to Mr. Steinholt's claim, there is no reliable economic basis to assume that the stock price reaction of investors in Cobalt to news about Shenandoah is reflective of the stock price reaction of investors in Anadarko (if any) to news about Shenandoah.

**E. Mr. Steinholt's Conclusions From After-Market Trading in Anadarko's Stock Are Based on Incorrect Facts and Without an Analysis of Market Efficiency of Anadarko's After-Market Trading and an Event Study Analysis.**

24. Citing a single *Bloomberg* article,<sup>55</sup> Mr. Steinholt states that "Anadarko's stock price declined 4.1% in after-market trading on May 2, 2017, after the Corrective Disclosure, but

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<sup>55</sup> Steinholt Rebuttal Report, fn. 90. Mr. Steinholt also points to a second *Bloomberg* article published at 4:24 PM which says "[s]hares down 3.5% since earnings release" but does not rely on it for his conclusion that "Anadarko's stock price declined 4.1% in after-market trading on May 2, 2017." Steinholt Rebuttal Report, fn. 89 and ¶ 7.

before the lone confounding factor identified by Dr. Ferrell.”<sup>56, 57</sup> From this, he concludes that news related to the Firestone, Colorado fire “identified by Dr. Ferrell could not have caused the earlier 4.1% decline in Anadarko’s stock price.”<sup>58</sup> Mr. Steinholt’s conclusion, which is not based on any independent analysis of after-market trading, is misleading and flawed for several reasons.

25. First, Mr. Steinholt’s chronology of the disclosure is wrong. Mr. Steinholt claims that “the decline in Anadarko’s stock price occurred before the first Firestone [Colorado] news identified by Dr. Ferrell, a *Denver Post* article published at 4:51 PM,” which reported on the results of the Firestone, Colorado fire department’s investigation that a “fatal house explosion was caused by odorless gas seeping from a cut-off underground pipeline...running from an Anadarko Petroleum well near the house.”<sup>59</sup> However, this claim by Mr. Steinholt is false and misleading. In the Ferrell Report, I never claimed that the first Firestone disclosure was at 4:51 PM. Nor did I claim to report a complete chronology of the events that transpired after market close on May 2, 2017, which would have been clear even by a cursory review of the market evidence. Because I was not looking at after-market trading – because it is not reliably informative— the timeline of after-market disclosures was not critical to any of my opinions in the Ferrell Report. I only provided the *Denver Post* article as evidence of news unrelated to the alleged Corrective Disclosure that was also disclosed after market close. Mr. Steinholt ignores that the news in the *Denver Post* article was disclosed as early as 4:03 PM, prior to Anadarko’s 1Q 2017 earnings release at 4:16 PM.<sup>60</sup>

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<sup>56</sup> Steinholt Rebuttal Report, ¶ 7.

<sup>57</sup> Mr. Steinholt is also wrong in claiming that the “lone” confounding factor I identified is the news related to the Firestone, Colorado fire. In the Ferrell Report, I explained that another confounding factor was Anadarko’s soft production guidance, which some analysts viewed as a negative. *See* Ferrell Report, ¶ 67.

<sup>58</sup> Steinholt Rebuttal Report, ¶ 38.

<sup>59</sup> Steinholt Rebuttal Report, ¶ 38 & “Deadly Firestone explosion caused by odorless gas leaking from cut gas flow pipeline,” *The Denver Post*, May 2, 2017 (4:51 PM).

<sup>60</sup> Firestone, Colorado fire officials held a press conference which started at approximately 4:03 PM and reporters disseminated the information on the results of the Firestone, Colorado fire officials’ investigation as to the cause of the fatal house explosion in real time prior to 4:16 PM. *See, e.g.*, Denver 7 News tweet at 4:03 PM (“WATCH LIVE: Officials are providing an update on last month’s home explosion in Firestone.”). [@DenverChannel]. (2017, May 2, 4:03 PM); Denver 7 News tweet at 4:11 PM

26. Specifically, shortly after the market close at 4:03 PM on May 2, 2017, a Denver 7 News tweet to “WATCH LIVE” the update being provided by the Firestone, Colorado fire officials that disclosed for the first time the results of the Firestone, Colorado fire officials’ investigation as to the cause of the fatal house explosion on April 17, 2017.<sup>61</sup> The tweet had a link to a live stream of the press conference on the Denver 7 News website and there was also a live stream of the press conference on Denver 7’s Facebook page, which showed that the press conference began at 4:02 PM on May 2, 2017.<sup>62</sup> Reporters also disseminated the information on the results of the fire officials’ investigation in real time.<sup>63</sup> Specifically, the fire investigators found that the explosion was caused by odorless gas seeping from a cut-off underground pipeline running from an Anadarko well into the house.<sup>64</sup> Soon after the firefighters released their report,

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(“Officials: Firestone home explosion caused by gas leaking into home from abandoned flow line.”) [@DenverChannel]. (2017, May 2, 4:11 PM) & reporter Kevin Vaughn tweet at 4:09 PM (“Cause of deadly Firestone home explosion was a cut line to an oil and gas well.”) [@writerkev]. (2017, May 2, 4:09 PM). It was previously known that there was a pipeline from an Anadarko well near the house that exploded, but the cause of the explosion had not been disclosed until the press conference on May 2, 2017. See “Oil-gas wells shut down after Colorado home explosion,” *Associated Press*, April 26, 2017 (“Anadarko Petroleum said it operated a 24-year-old well about 200 feet (60 meters) from the site of the April 17 explosion and fire in the town of Firestone. Fire department investigators said the well is part of their inquiry but they haven’t determined the cause of the explosion.”).

<sup>61</sup> See, e.g., Denver 7 News tweet at 4:03 PM (“WATCH LIVE: Officials are providing an update on last month’s home explosion in Firestone.”). [@DenverChannel]. (2017, May 2, 4:03 PM); “Lots of Unknowns, But Two Key Facts from DJ Basin Incident – ALERT,” J.P. Morgan, April 26, 2017. See also, “Colorado Uncertainty,” Morgan Stanley, April 27, 2017 (“The event is under an investigation by authorities and no conclusion has been reached as to its cause.”); “APC Reports Downtime in Wattenberg,” Capital One Securities, April 27, 2017 (“The cause of the explosion is still unknown.”) & “APC Colorado Shut-Ins,” Evercore ISI, April 27, 2017 (“Unknowns remain in regards to the causes and implications of the proactive announcement by APC and the event in question.”).

<sup>62</sup> Denver 7 News tweet at 4:03 PM (“WATCH LIVE: Officials are providing an update on last month’s home explosion in Firestone.”). [@DenverChannel]. (2017, May 2, 4:03 PM); Denver 7 News, “Latest on Firestone home explosion investigation,” <https://www.facebook.com/Denver7News/videos/latest-on-firestone-home-explosion-investigation/10154807218543271/> (last accessed June 11, 2024).

<sup>63</sup> See, e.g., Denver 7 News tweet at 4:11 PM (“Officials: Firestone home explosion caused by gas leaking into home from abandoned flow line.”) [@DenverChannel]. (2017, May 2, 4:11 PM) & reporter Kevin Vaughn tweet at 4:09 PM (“Cause of deadly Firestone home explosion was a cut line to an oil and gas well.”) [@writerkev]. (2017, May 2, 4:09 PM).

<sup>64</sup> “Deadly Firestone explosion caused by odorless gas leaking from cut gas flow pipeline,” *Denver Post*, May 2, 2017 (4:51 PM).

then Colorado Governor John Hickenlooper ordered oil and gas companies statewide to inspect and pressure-test oil and gas flowlines within 1,000 feet of occupied buildings.<sup>65</sup>

27. Therefore, Mr. Steinholt is just factually wrong that the 4.1% decline could not have been the result of news related to the Firestone, Colorado fire.

28. Second, Mr. Steinholt does not establish that the after-market trading of Anadarko stock was efficient, as would be required to draw any reliable conclusion from Anadarko's after-market stock price movements. In the Steinholt Report, he performs a market efficiency analysis of Anadarko stock over the entire trading day (i.e., close-to-close) by analyzing numerous indicators of market efficiency.<sup>66</sup> By contrast, Mr. Steinholt does not look at even one of those indicators of market efficiency for after-market trading in Anadarko stock. Even if one finds that the entire trading day is efficient, it does not follow that the after-market trading is efficient because the characteristics of after-market trading are different than regular trading hours. As market commentators have noted:<sup>67</sup>

- “One big problem with extended-hours trading is that there are far fewer participants in the markets during those times than there are during regular hours. That means it can be difficult for investors to find a match for a trade they want to make at the price they want. It also means that share prices can be more volatile during extended hours.”<sup>68</sup>
- “After-hours trading comes with several risks not associated with trading on an exchange during regular trading sessions.... During a normal trading session, you’ll get the best available price from multiple venues. But after-hours sessions limit your price discovery

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<sup>65</sup> “Deadly Firestone explosion caused by odorless gas leaking from cut gas flow pipeline,” *Denver Post*, May 2, 2017 (4:51 PM) (“Fire investigators found a 1-inch diameter black plastic pipeline running from an Anadarko Petroleum well near the house that had been cut when a tank battery was moved before the Oak Meadows subdivision was built, Poszywak said. That pipeline leaked the gas from a point 6 feet from the southeast corner of the house at 6312 Twilight Ave. in Firestone. Investigators said they found the gas valve at the Anadarko well in the ‘on’ position.”).

<sup>66</sup> Steinholt Report, ¶¶ 19-52.

<sup>67</sup> Moreover, studies using after-market trading data clean the data to exclude trades that (i) were made during regular trading hours that were only reported after market hours (i.e., late reported trades), (ii) use a prior reference price, and (iii) were sold out of sequence. *See, e.g.*, Internet Appendix to V. Gregoire and C. Martineau, 2022, “How Is Earnings News Transmitted to Stock Prices?,” *Journal of Accounting Research*, Vol. 60, 261-297 (excluded trades that are considered “Sold Last (Late Reporting),” “Prior Reference Price,” “Extended Hours (Sold Out of Sequence),” “Sold (Out of Sequence),” and “Derivatively Priced.”) & E. Li, K. Ramesh, M. Shen, J. Wu, 2013, “Do Analyst Stock Recommendations Piggyback on Recent Corporate News? An Analysis of Regular-Hour and After-Hours Revisions,” Working Paper. Mr. Steinholt did no such cleaning of the after-market data he relies on here.

<sup>68</sup> “The Perils of After-Hours Stock Trading,” *The Wall Street Journal*, April 7, 2019.

to just one network.... Not only are you limited to the ECN your broker uses, there are fewer market participants in after-hours session.. As a result, there's limited liquidity for most stocks. That creates wider bid-ask spreads.... When everyone's trying to react to a news item all at once, a stock will trade wildly in the after-hours session. The market will work to digest the news and discover a new price for the security.”<sup>69</sup>

- “Trading is a very different animal after 4:00 pm ET. The available liquidity is thinner, spreads are wider, and volatility is higher. Once the closing price is established for a listed stock or ETF at the 4:00 pm close, market participants frequently want additional liquidity – but many simply can't find what they need in the after-hours market to effectively execute their strategies.”<sup>70</sup>

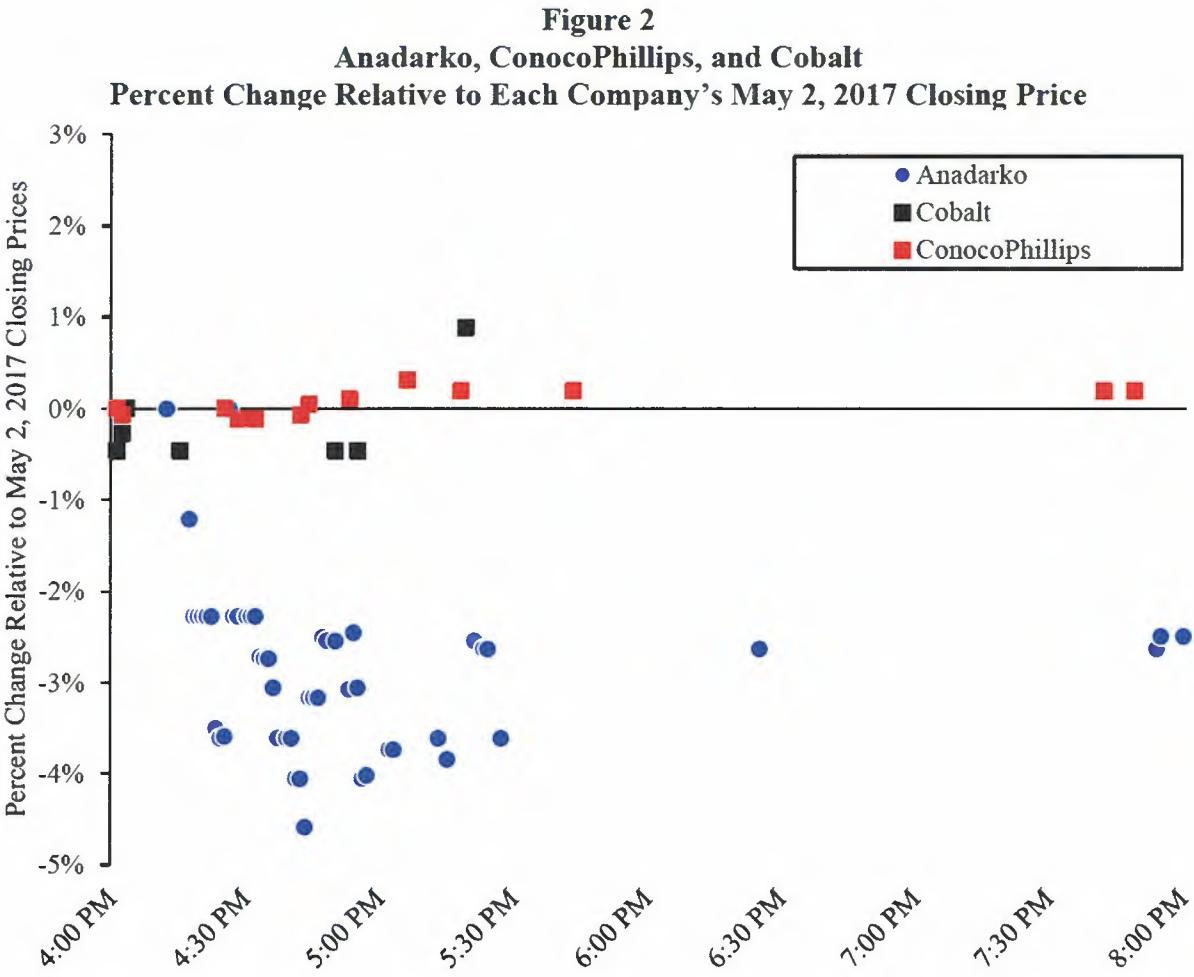
29. Third, Mr. Steinholt did not perform an event study on Anadarko’s after-market trading. Consequently, the 4.1% decline Mr. Steinholt relies upon is not adjusted for market and industry factors and cannot be tested for statistical significance. In fact, Mr. Steinholt does not even purport to opine that the 4.1% drop was statistically significant (i.e., whether the return is statistically different from zero).

30. Finally, even if one were to ignore these fatal flaws and assume that the after-market trading activity could be relied upon to draw conclusions about price impact – a closer look at the after-market trading data on May 2, 2017 contradicts Mr. Steinholt’s conclusion that the alleged Corrective Disclosure had a price impact on Anadarko stock and further supports the price impact of the news related to the Firestone, Colorado fire. If the alleged Corrective Disclosure had a price impact, I would expect to see a price decline in ConocoPhillips and Cobalt’s stock prices after-market hours on May 2, 2017. To the contrary, the after-market hours trading data on May 2, 2017 shows that ConocoPhillips’s and Cobalt’s stock prices were relatively flat, consistent with the conclusion that the alleged Corrective Disclosure did not have a price impact. *See Figure 2.*

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<sup>69</sup> “After-Hours Trading: What It Is and How It Works,” *The Motley Fool*, updated November 13, 2023, <https://www.fool.com/terms/a/after-hours-trading/> (last accessed June 11, 2024).

<sup>70</sup> “Will Nasdaq’s New Extended Trading Close (ETC) Transform After-Hours Trading?” *Institutional Investor*, February 15, 2022.



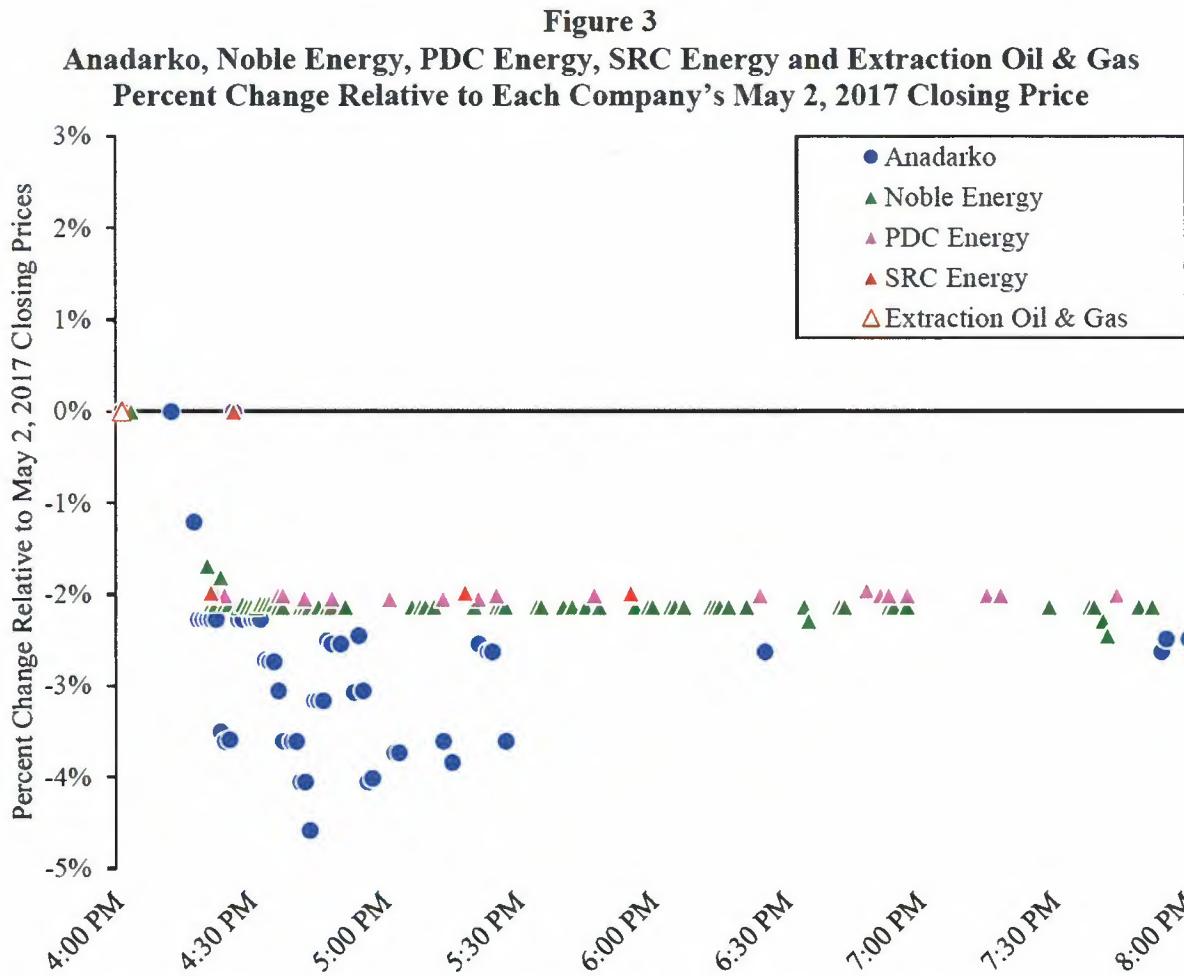
Notes and Sources: The percent change reported above is calculated based on each company's closing price on May 2, 2017 per CRSP. The markers represent the last trade of each minute in which a trade occurs per Tick Data. We report after-market trades after removing the trades that Tick Data recommends be excluded.<sup>71</sup>

31. Also, if the news about the Firestone, Colorado fire had a price impact, I would expect to see a price decline in the Colorado peers' stock prices after-market hours on May 2, 2017. Consistent with this, and like Anadarko, the stock prices of Noble, PDC Energy and SRC Energy (i.e., the three companies in Mr. Steinholt's Colorado Peer Group<sup>72</sup>) fell during after-

<sup>71</sup> US Equity Trade, Quote & One-Minute Dataset v4.0, Copyright © Tick Data, LLC, p. 6.

<sup>72</sup> Steinholt Rebuttal Report, fn. 103.

market hours trading on May 2, 2017, consistent with the conclusion that the news related to the Firestone, Colorado fire had a price impact.<sup>73</sup> See Figure 3.



Notes and Sources: The percent change reported above is calculated based on each company's closing price on May 2, 2017 per CRSP. The markers represent the last trade of each minute in which a trade occurs per Tick Data. We report after-market trades after removing the trades that Tick Data recommends be excluded.<sup>74</sup>

**F. Mr. Steinholt's New Event Study Does Not Control For the News Related to the Firestone, Colorado Fire and Is Otherwise Unreliable Because It Relies on an Unsound Methodology.**

32. In his original report, Mr. Steinholt's event study model uses the S&P 500 Index (market index) and a portfolio of "Anadarko's peers" (oil industry index) to control for market

<sup>73</sup> On May 2, 2017, Extraction Oil & Gas only had two trades between 4:00 PM and 4:01 PM and did not have any trades after 4:01 PM per Tick Data.

<sup>74</sup> US Equity Trade, Quote & One-Minute Dataset v4.0. Copyright © Tick Data, LLC, p. 6.

and industry factors, respectively.<sup>75</sup> This original model finds Anadarko's abnormal return on April 27, 2017 (i.e., a date when news about the Firestone, Colorado fire was released) to be statistically significant. In the Steinholt Rebuttal Report, Mr. Steinholt proffers a new event study model. His second event study model uses the S&P 500 Index (market index) to control for market factors but now uses an equal-weighted portfolio of Noble, SRC Energy, and PDC Energy ("Colorado Peer Group") to purportedly control for Firestone, Colorado issues and does not include the oil industry index from his original report.<sup>76</sup> This second model does not find Anadarko's abnormal return on April 27, 2017 to be statistically significant.<sup>77</sup> From this observation, Mr. Steinholt claims that his "event study now controls for the [news related to the Firestone, Colorado fire] as it was designed to do."<sup>78</sup> However, as I explain below, Mr. Steinholt's claim is misleading and flawed.

33. As an initial matter, Mr. Steinholt claims that Anadarko's connection to the Firestone, Colorado fire was first disclosed on April 27, 2017; not May 2, 2017.<sup>79</sup> He is implying that the information on May 2, 2017 related to the Firestone, Colorado fire was stale and, thus, in an efficient market, is not expected to affect Anadarko's stock price on May 3, 2017. This claim by Mr. Steinholt, however, is flawed because there was new information related to the Firestone, Colorado fire that was disclosed after market close on May 2, 2017. As noted by Morgan Stanley, the May 2, 2017 disclosure was that "authorities (Frederick-Firestone Protection District) *concluded* that APC's well sourced the gas that caused the April 17 explosion and subsequent fire destroying a home and killing 2 people in Firestone, CO," while the "[p]otential association of the fire to the APC well occurred on April 27, after APC voluntarily shut-in 3k producing wells for inspection" (emphasis added).<sup>80</sup> In other words, Mr. Steinholt is incorrectly

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<sup>75</sup> Steinholt Report, ¶ 37.

<sup>76</sup> Steinholt Rebuttal Report, ¶ 44 (stating that the "Colorado Peer Group was specifically designed to make sure that factors related to increased regulatory concerns in Colorado as a result of the Firestone explosion were reflected and accounted for in the index.").

<sup>77</sup> Steinholt Rebuttal Report, ¶ 45.

<sup>78</sup> Steinholt Rebuttal Report, ¶ 45.

<sup>79</sup> Steinholt Rebuttal Report, ¶ 35.

<sup>80</sup> "1Q17: Headwinds Accumulate; Move to EW," Morgan Stanley, May 3, 2017. *See also* "APC Statement on Colorado Explosion," Wells Fargo, April 27, 2017; "Lots of Unknowns, But Two Key Facts from DJ Basin Incident - ALERT," JP Morgan, April 27, 2017 (showing that, on April 7, 2017, the

equating a disclosure of a “potential association” to an Anadarko well with the conclusion that it was an Anadarko well. In addition, Mr. Steinholt also ignores that, soon after the firefighters released their report, Colorado Governor John Hickenlooper ordered oil and gas companies statewide to inspect and pressure-test oil and gas flowlines within 1,000 feet of occupied buildings<sup>81</sup> – i.e., the Colorado Governor’s order was new information that was not disclosed on April 27, 2017.

34. Moreover, the economic evidence further supports the value-relevance of the Firestone, Colorado fire news on May 2, 2017. For example, Morgan Stanley stated: “Colorado authorities determined last night that gas related to an APC well caused 4/17 home explosion. While liability is undetermined, we lower PT to \$74/sh [from \$89] and rating to EW to reflect higher asset risk. … Our adjusted PT primarily reflects increased risking of DJ locations and a correspondingly lower out-year rig count due to shallower inventory in our NAV estimate. It also assumes lower multiple expansion due to potential regulatory headwinds and overhang.”<sup>82</sup> Furthermore, the findings of the event studies I performed on each of the other Colorado operators – Noble, PDC Energy, SRC Energy, and Extraction Oil & Gas – are also consistent with the Firestone, Colorado fire news being new, value-relevant information, as I found that all four Colorado operators fell by a statistically significant amount on May 3, 2017 (which Mr. Steinholt does not dispute).<sup>83</sup>

35. Mr. Steinholt’s claim that his “event study now controls” for the news related to the Firestone, Colorado fire is misleading because his second event study is inconsistent with his original event study. In the Steinholt Report, his event study model uses a market index and an oil industry index to establish that Anadarko’s stock price movement was significantly impacted

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Firestone, Colorado fire department investigation was still ongoing); “APC-Investigation Links Incident to Abandoned Gas Flow Line, RBC, May 2, 2017 (“an investigation by the Frederick-Firestone Fire Department attributed an April 17 home explosion to an abandoned gas flow line”) & “When It Rains, It Pours,” Deutsche Bank, May 3, 2017 (“Earlier this evening, investigators reported that the cause of the deadly Firestone home explosion was an uncapped gas pipeline that had remained attached to an abandoned APC well.”).

<sup>81</sup> “Deadly Firestone explosion caused by odorless gas leaking from cut gas flow pipeline,” *Denver Post*, May 2, 2017 (4:51 PM).

<sup>82</sup> “1Q17: Headwinds Accumulate; Move to EW,” Morgan Stanley, May 3, 2017.

<sup>83</sup> Ferrell Report, Figure 1.

after controlling for market and industry factors.<sup>84</sup> By contrast, his second event study inexplicably does not control for the industry impact on Anadarko because he replaces the oil industry index with his Colorado Peer Group, which he claims “controls for the Firestone issue.”<sup>85</sup> If Mr. Steinholt simply added his Colorado Peer Group to his original event study (i.e., a three-factor model with the market index, oil industry index, and the Colorado Peer Group), which presumably would have controlled for market, industry, and Firestone issues, he would have found April 27, 2017 to still be statistically significant. This means that, based on Mr. Steinholt’s own test, he would have concluded that his event study does not appropriately control for the news related to the Firestone, Colorado fire.<sup>86</sup> Thus, to achieve his desired result, Mr. Steinholt relies upon changing his event study model completely by cherry-picking which factors to include or exclude from his event study model (i.e., replacing his oil industry index with his Colorado Peer Group).<sup>87</sup>

36. In any event, adding Mr. Steinholt’s Colorado Peer Group to any event study model is not appropriate to control for the effects of the Firestone, Colorado fire. The Firestone, Colorado fire is a one-time event which did not occur until April 17, 2017 (i.e., there are no fires affecting the Colorado operators every day), and its impact on Anadarko would not be accurately captured by a regression model that uses historical daily data going back to April 27, 2016.<sup>88</sup> That is, the regression model used by Mr. Steinholt in his second event study cannot be used to predict the expected price movement of Anadarko when there is a Firestone, Colorado fire in order to assess whether its price response on April 27, 2017 is abnormal. As such, Mr. Steinholt’s second event study model is not methodologically sound.

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<sup>84</sup> Steinholt Report, ¶ 37.

<sup>85</sup> Steinholt Rebuttal Report, ¶ 45.

<sup>86</sup> In deposition testimony, Mr. Steinholt appears to suggest that if his analysis took into account the alleged fraud he would have not included ConocoPhillips in his peer group. Steinholt Dep. Tr., 15:2-8 & 25:17-22. Thus, for purposes of the above analysis, I modified Mr. Steinholt’s industry index to exclude ConocoPhillips. The results are qualitatively similar whether I included or excluded ConocoPhillips from the oil industry index.

<sup>87</sup> Steinholt Rebuttal Report, fn. 103.

<sup>88</sup> Mr. Steinholt’s second event study model determines the statistical relationship between Anadarko’s stock price returns and the returns of the Colorado Peer Group during the 252-trading day period prior to April 27, 2017. Steinholt Rebuttal Report, fn. 103. However, 97% of the trading days (244 of 252 trading days) in his control period occurred prior to the Firestone, Colorado fire on April 17, 2017.

37. In addition, the regression model would still not account for the disproportionate effect of the news about the Firestone, Colorado fire on Anadarko relative to the members of the Colorado Peer Group. This is because the Colorado Peer Group, at best, reflects the average effect of the news related to the Firestone, Colorado fire on the Colorado Peers. As I explained in the Ferrell Report, Colorado fire officials linked the cause of the house explosion to an Anadarko well and Anadarko was the largest oil and gas producer in Colorado at the time.<sup>89</sup> Thus, I would expect Anadarko to be more affected than the average effect of the news related to the Firestone, Colorado fire on the Colorado Peers.



Allen Ferrell

Dated: June 12, 2024

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<sup>89</sup> Ferrell Report, ¶ 65.

## Appendix 1

June, 2024

**Allen Ferrell**  
Harvard Law School  
Cambridge, Massachusetts 02138  
Telephone: (617) 495-8961  
Email: fferrell@law.harvard.edu

## CURRENT POSITIONS

*Greenfield Professor of Securities Law*, Harvard Law School

*Visiting Professor*, Stanford Law School

*National Bureau of Economic Research*, Research Associate

*Fellow*, Columbia University's Program on the Law and Economics of Capital Markets

*Faculty Associate*, Kennedy School of Government

*Research Associate*, European Corporate Governance Institute

## EDUCATION

*Massachusetts Institute of Technology*, Ph.D. in Economics, 2005  
Fields in econometrics and finance

*Harvard Law School*, J.D., 1995, *Magna Cum Laude*

- Recipient of the *Sears Prize* (award given to the two students with the highest grades)
- Editor, *Harvard Law Review*

*Brown University*, B.A. and M.A., 1992, *Magna Cum Laude*

## PREVIOUS POSITIONS

*Harvard University Fellow*  
Harvard Law School, 1997

*Law Clerk*, Justice Anthony M. Kennedy  
Supreme Court of the United States; 1996 Term

*Law Clerk, Honorable Laurence H. Silberman*  
United States Court of Appeals for the District of Columbia; 1995 Term

### **COURSES TAUGHT**

*Blockchain & Cryptocurrencies*  
*Corporate Finance*  
*Law and Finance*  
*Securities Litigation & Regulation*  
*Contracts*

### **REFEREE FOR FOLLOWING JOURNALS**

*American Law and Economics Review*  
*Journal of Corporation Finance*  
*Journal of Finance*  
*Journal of Financial Perspectives*  
*Journal of Law and Economics*  
*Journal of Law, Economics and Organization*  
*Journal of Legal Studies*  
*Quarterly Journal of Economics*

### **CONSULTING AREAS**

Price Impact and Securities Damages, Valuation, Mergers & Acquisitions

### **Papers**

“Are Star Law Firms Better Law Firms?” with Manconi, Neretina, Powley & Renneboog, revise and resubmit at the *Journal of Accounting Research* (2024)

“Hidden History of Securities Damages”, 1 *University of Chicago Business Law Review* 97 (2022)

“How Accurate are Matrix Bond Prices?” with Drew Roper & Yibai Shu, *Working Paper* (2018)

“New Special Study of the Securities Markets: Intermediaries” with John Morley in *SECURITIES MARKET ISSUES FOR THE 21ST CENTURY* (2018) (editors Fox, Glosten, Greene and Patel)

“Socially Responsible Firms,” with Hao Liang and Luc Renneboog, 122 *Journal of Financial Economics* 586-606 (2016) (winner of Moskowitz Prize for outstanding quantitative research)

“Price Impact, Materiality, and *Halliburton II*” with Drew Roper, 93 *Washington University Law Review* 553 (2016)

“Introducing the CFGM Corporate Governance Database: Variable Construction and Comparison” with Cremers, Gompers and Andrew Metrick, Working Paper

“The Benefits and Costs of Indices in Empirical Corporate Governance Research,” in OXFORD HANDBOOK ON CORPORATE LAW AND GOVERNANCE (2016)

“Thirty Years of Shareholder Rights and Stock Returns,” with Martijn Cremers, *revise and resubmit Journal of Financial Economics*

“Thirty Years of Shareholder Rights and Firm Valuation,” with Martijn Cremers, 69 *Journal of Finance* 1167 (2014)

“Rethinking *Basic*,” with Lucian Bebchuk, 69 *Business Lawyer* 671 (2014)

“Calculating Damages in ERISA Litigation,” with Atanu Saha, 1 *Journal of Financial Perspectives* 93 (2013)

“Forward-casting 10b-5 Damages: A Comparison to other Methods”, with Atanu Saha, 37 *Journal of Corporation Law* 365 (2011)

“Event Study Analysis: Correctly Measuring the Dollar Impact of an Event” with Atanu Saha, Working Paper (2011)

“Legal and Economic Issues in Litigation arising from the 2007-2008 Credit Crisis,” with Jennifer Bethel and Gang Hu, in PRUDENT LENDING RESTORED: SECURITIZATION AFTER THE MORTGAGE MELTDOWN (2009)

“Securities Litigation and the Housing Market Downturn,” with Atanu Saha, 35 *Journal of Corporation Law* 97 (2009)

“The Supreme Court’s 2005-2008 Securities Law Trio: *Dura Pharmaceuticals*, *Tellabs*, and *Stoneridge*,” 9 *Engage* 32 (2009)

“What Matters in Corporate Governance?” with Lucian Bebchuk & Alma Cohen, 22 *Review of Financial Studies* 783 (2009)

“Do Exchanges, CCPs, and CSDs have Market Power?,” in GOVERNANCE OF FINANCIAL MARKET INFRASTRUCTURE INSTITUTIONS (Ruben Lee) (2009)

“An Asymmetric Payoff-Based Explanation of IPO ‘Underpricing’,” Working Paper, with Atanu Saha (2008)

“The Law and Finance of Broker-Dealer Mark-Ups,” commissioned study for NASD using proprietary database (2008)

“Majority Voting” in REPORT OF THE COMMITTEE ON CAPITAL MARKETS REGULATION (2008)

“The Loss Causation Requirement for Rule 10B-5 Causes of Action: The Implications of *Dura Pharmaceuticals v. Broudo*,” with Atanu Saha, 63 BUSINESS LAWYER 163 (2007)

“Mandated Disclosure and Stock Returns: Evidence from the Over-the-Counter Market,” 36 *Journal of Legal Studies* 1 (June, 2007)

“Policy Issues Raised by Structured Products,” with Jennifer Bethel, in BROOKINGS –NOMURA PAPERS IN FINANCIAL SERVICES (2007)

“The Case for Mandatory Disclosure in Securities Regulation around the World,” 2 *Brooklyn Journal of Business Law* 81 (2007)

“U.S. Securities Regulation in a World of Global Exchanges,” with Reena Aggarwal and Jonathan Katz, in EXCHANGES: CHALLENGES AND IMPLICATIONS (2007)

“Shareholder Rights” in REPORT OF THE COMMITTEE ON CAPITAL MARKETS REGULATION (2007)

“Creditor Rights: A U.S. Perspective,” 22 *Angler- und Glaubigerschutz bei Handelsgesellschaften* 49 (2006)

“Measuring the Effects of Mandated Disclosure,” 1 *Berkeley Business Law Journal* 369 (2004)

“If We Understand the Mechanisms, Why Don’t We Understand the Output?”, 37 *Journal of Corporation Law* 503 (2003)

“Why European Takeover Law Matters,” in REFORMING COMPANY AND TAKEOVER LAW IN EUROPE (2003)

“Does the Evidence Favor State Competition in Corporate Law?”, with Alma Cohen & Lucian Bebchuk, 90 *California L. Rev.* 1775 (2002)

“Corporate Charitable Giving,” with Victor Brudney, 69 *Univ. Of Chicago Law Review* 1191 (2002)

“A Comment on Electronic versus Floor-Based Securities Trading,” *Journal of Institutional and Theoretical Economics* (Spring 2002)

“Much Ado About Order Flow,” *Regulation Magazine* (Spring 2002)

“On Takeover Law and Regulatory Competition,” with Lucian Bebchuk, 57 *Business Lawyer* 1047 (2002)

“Federal Intervention to Enhance Shareholder Choice,” with Lucian Bebchuk, 87 *Virginia Law Review* 993 (2001)

"A New Approach to Regulatory Competition in Takeover Law," with Lucian Bebchuk, 87 *Virginia Law Review* 111 (2001)

"A Proposal for Solving the 'Payment for Order Flow' Problem," 74 *Southern California Law Review* 1027 (2001)

"Federalism and Takeover Law: The Race to Protect Managers from Takeovers," with Lucian Bebchuk, 99 *Columbia L. Rev.* 1168 (1999)

#### **TESTIMONY LAST FOUR YEARS**

*In re P3 Health Group Holdings, LLC*, Case No. 2021-0518-JTL, Expert reports and depositions on August 26, 2021 and May 29, 2024

*Gelt Trading v. Co-Diagnostics*, Case No. 2:20-CV-00368-CMR, Expert report and deposition on March 1, 2024

*Homyk v. ChemoCentryx*, Case No. 4:21-CV-03343-JST, Expert report and deposition on January 6, 2024

*In re Ripple Labs Litigation*, Case No. 4:18-CV-06753-PJH, Expert report and deposition on October 16, 2023

*Chabot v. Walgreens*, Case No. 1:18-CV-02118-CCC-KM, Expert report and deposition on October 6, 2023

*XOG Litigation Trust v. Kelley*, Case No. 01-22-0002-3114, Expert report and deposition on August 31, 2023 and testimony on October 25, 2023

*CRCM v. Getty Images Holdings*, Case No. 1:23-CV-01074-JSR, Expert report and deposition on August 14, 2023

*Halperin & Davis, Co-Trustees of Appvion Liquidating Trust v. Richards et al.*, Case No. 17-12082, Expert report and deposition on August 9, 2023

*IBM v. GlobalFoundries U.S. Inc.*, Case Index No. 653625/2021, Expert report and deposition on June 27, 2023

*In re Anadarko Petroleum Corporation Securities Litigation*, C.A. No. 4:20-CV-00576, Expert report and deposition on March 2, 2023

*In Re Madison Square Garden Entertainment Corp. Stockholders Litigation*, C.A. No. 2021-0468-KSJM, Expert report and deposition on February 22, 2023

*Politan Capital Management v. Masimo Corporation et al*, C.A. No. 2022-0948-NAC, Expert report and deposition on February 5, 2023

*Restanca v. House of Lithium*, C.A. No. 2022-0690-PAF, Expert report and deposition on November 21, 2022 and testimony on December 7, 2022

*Roberts et al. v. Zuora*, Case No. 3:19-cv-03422-SI, Expert report and testimony on October 25, 2022

*United States v. Milton*, 21 Crim. 478, Expert testimony on September 30 & October 3, 2022

*FSG Services v. Flutter*, Ref. No. 1425034540, Expert report and testimony on June 29, 2022

*In re Kraft Heinz Securities Litigation*, Case No. 1:19-cv-01339, Expert report and deposition on June 23, 2022

*Ramirez v. Exxon Mobil Corporation et al.*, Case No. 3:16-cv-031110K, Expert report and deposition on March 22, 2019 and trial testimony June 7, 2022

*SEC v. AT&T Inc. et al.*, 21 Civ. 1951, Expert report and deposition on April 15, 2022

*Securitized Asset Funding 2011-2 v. CIBC*, Case Index No. 653911/2015, Expert report and deposition on July 30, 2021 and trial testimony March 18 and 21, 2022

*SEC v. Ripple*, Case No. 20-CV-10832, Expert report and deposition on February 23, 2022

*Chabot et al. v. Walgreens*, M.D. Pa 1:18-cv-02118, Expert report and deposition on January 18, 2022

*EIG Energy Fund v. Keppel Offshore & Marine LTD*, Case No. 18-cv-01047-PGG, Expert report and deposition on December 9, 2021

*Purple Mountain Trust v. Wells Fargo et al.*, Case No. 3:18-cv-03948-JD, Expert report and deposition on December 3, 2021

*In re Robinhood Litigation*, Case No. 3:20-cv-01626-JD, Expert reports and deposition on September 30, 2021

*Pearlstein et al. v. BlackBerry Limited*, Case No. 1:13-cv-7060-CM, Expert report and deposition on November 3, 2020

## Appendix 2

## Materials Relied Upon

### Expert Reports and Deposition

1. Expert Report and Exhibits of Bjorn I. Steinholt, CFA, October 1, 2021
2. Deposition of Bjorn Steinholt, November 17, 2021
3. Expert Report and Exhibits of Allen Ferrell, PhD, December 10, 2021
4. Expert Rebuttal Report and Exhibits of Bjorn I. Steinholt, CFA, February 2, 2022

### Securities and Exchange Commission Filings

1. Anadarko Petroleum Corporation, Form 10-K, December 31, 2014
2. Anadarko Petroleum Corporation, Form 10-K, December 31, 2016
3. Anadarko Petroleum Corporation, Form 10-Q, March 31, 2017

### Academic Literature and Regulatory Publications

1. P. Asquith, and L. Weiss, 2019, *Lessons in Corporate Finance*, 2nd ed., (Wiley)
2. M. Barclay and C. Holderness, 1989, "Private Benefits From Control of Public Corporations," *Journal of Financial Economics*, Vol. 26
3. R. Brealey, S. Myers, and F. Allen, 2011, *Principles of Corporate Finance*, 12th ed. (McGraw-Hill/Irwin)
4. J. Campbell, J. Hilscher, and J. Szilagy, 2011, "Predicting Financial Distress and the Performance of Distressed Stocks," *Journal of Investment Management*, Vol. 9
5. A. Dyck and L. Zingales, 2004, "Private Benefits of Control: An International Comparison," *Journal of Finance*, Vol. 59
6. V. Gregoire and C. Martineau, 2022, "How Is Earnings News Transmitted to Stock Prices?," *Journal of Accounting Research*, Vol. 60
7. T. Koller, M. Goedhart, and D. Wessels, 2020, *Valuation*, 7th ed. (Wiley)
8. E. Li, K. Ramesh, M. Shen, J. Wu, 2013, "Do Analyst Stock Recommendations Piggyback on Recent Corporate News? An Analysis of Regular-Hour and After-Hours Revisions," Working Paper
9. N. Mankiw, 2016, *Principles of Economics*, 8th ed. (Cengage Learning)
10. S. Ross, R. Westerfield and B. Jordan, 2015, *Fundamentals of Corporate Finance*, 11th ed. (McGraw Hill)
11. FASB Statement of Financial Accounting Standards No. 141: Business Combinations

### Conference Call Transcripts

1. "Q3 2015 ConocoPhillips Earnings Call – Final," *CQ FD Disclosure*, October 29, 2015
2. "Q1 2017 Anadarko Petroleum Corp Earnings Call – Final," *CQ FD Disclosure*, May 3, 2017

## News Articles and Press Releases

1. “ConocoPhillips Announces Dividend Increase and Reductions in Future Deepwater Exploration Spending,” *Business Wire*, July 16, 2015
2. “Oil-gas wells shut down after Colorado home explosion,” *Associated Press*, April 26, 2017
3. “Anadarko 1Q Adjusted Loss Per Share Wider Than Est.; Shares Fall,” *Bloomberg*, May 2, 2017
4. “Deadly Firestone explosion caused by odorless gas leaking from cut gas flow pipeline,” *Denver Post*, May 2, 2017 4:51 PM
5. “ConocoPhillips Provides Update to First-Quarter 2017 Results Based on Subsequent Partner Disclosures and Information,” *Business Wire*, May 4, 2017
6. “The Perils of After-Hours Stock Trading,” *The Wall Street Journal*, April 7, 2019
7. “After-Hours Trading: What It Is and How It Works,” *The Motley Fool*, updated November 13, 2023
8. “Will Nasdaq’s New Extended Trading Close (ETC) Transform After-Hours Trading?,” *Institutional Investor*, February 15, 2022

## Anadarko Analyst Reports

1. “APC Reports Downtime in Wattenberg,” Capital One Securities, April 27, 2017
2. “APC Colorado Shut-Ins,” Evercore ISI, April 27, 2017
3. “Lots of Unknowns, But Two Key Facts from DJ Basin Incident - ALERT,” JP Morgan, April 27, 2017
4. “Colorado Uncertainty,” Morgan Stanley, April 27, 2017
5. “APC Statement on Colorado Explosion,” Wells Fargo, April 27, 2017
6. “APC – Investigation Links Incident to Abandoned Gas Flow Line,” RBC Capital Markets, May 2, 2017
7. “Colorado is not Macondo,” Credit Suisse, May 3, 2017
8. “When It Rains, It Pours,” Deutsche Bank, May 3, 2017
9. “1Q17: Headwinds Accumulate; Move to EW,” Morgan Stanley, May 3, 2017
10. “Results Overshadowed by a Colorado Home Explosion,” Barclays, May 4, 2017
11. “America’s Energy: Oil & Gas – E&P: DJ Basin: State of CO mandates flowline integrity tests; potential impact on APC/NBL/PDCE/XOG,” Goldman Sachs, May 4, 2017

## ConocoPhillips Analyst Reports

1. “1Q17 First look: return of FCF outshines irrelevant (and modest) EPS miss,” Bank of America Merrill Lynch, May 2, 2017
2. “First Glance of ConocoPhillips (COP) 1Q17 Results,” Barclays, May 2, 2017
3. “Results: COP: New COP taking shape post-deals,” Citigroup Inc, May 2, 2017
4. “1Q17 Earnings at a Glance,” Cowen and Company, May 2, 2017
5. “Execution & Low Cost Portfolio Just Need Macro to Co-Operate,” Credit Suisse, May 2, 2017
6. “Another Quarter, Another Beat,” Deutsche Bank, May 2, 2017
7. “Initial Impressions – COP: Results In-Line; Pledge on Plan; Target Price \$70,” Evercore ISI, May 2, 2017

8. "1Q17 Quick Take - ALERT," J.P. Morgan, May 2, 2017
9. "Buybacks to Ramp Up Nearly Ten-Fold," J.P. Morgan, May 2, 2017
10. "1Q17 Mixed Results," Morgan Stanley, May 2, 2017
11. "1Q17 Miss; Buyback Is All Well & Good, but Let's See Some Organic Growth," Raymond James, May 2, 2017
12. "Digging into the Numbers Shows Good Operational Performance [sic]," RBC Capital Markets, May 2, 2017
13. "1Q'17 Earnings Review - Thesis Unchanged," Simmons & Company, May 2, 2017
14. "1Q'17 Quick Look: Relatively In-line Quarter," Simmons & Company, May 2, 2017
15. "1Q17 'living within cash flow' for cap-ex, dividend and some other expenditures. 1H17 a WIP," Société Générale, May 2, 2017
16. "1Q EPS/CFPS Miss but Production Beats; On Track to Accelerate Debt Reduction & Buybacks in 2H17," UBS Equities, May 2, 2017
17. "COP: 1Q17 Results And Review--Neutral," Wells Fargo Securities, LLC, May 2, 2017
18. "COP: If You Like Share Repos, You'll Like COP," Wells Fargo Securities, LLC, May 2, 2017
19. "COP Shop," Wolfe Research, May 2, 2017
20. "1Q17 Earnings recap: free cash leverage intact to ride out a depressed oil cycle," Bank of America Merrill Lynch, May 3, 2017
21. "Here Comes the Cash Return," Barclays, May 3, 2017
22. "COP: Results In-Line; Pledge on Plan; Target price \$70," Evercore ISI, May 3, 2017
23. "Q1'17 Narrows Loss, Raise Estimates," Hilliard Lyons, May 3, 2017
24. "ConocoPhillips Posts 1Q Loss, but Asset Sales Plan Boosts FVE," Morningstar Inc., May 3, 2017
25. "ConocoPhillips is the world's largest independent exploration and production company based on production and proved reserves, Credit Perspective," Morningstar Inc., May 3, 2017
26. "1Q17 Takeaways - Headline EPS Miss & Soft Buybacks Prompt Weakness; Stay the Course...," Scotia Howard Weil, May 3, 2017
27. "1Q17 Earnings Restated on Shenandoah Dry Hole," Barclays, May 4, 2017
28. "Model Update," J.P. Morgan, May 4,
29. "2017Q17 Results Update: Shenandoah Dry Hole Expense," Scotia Howard Weil, May 5, 2017
30. "Morning Energy Commentary," Scotia Howard Weil, May 5, 2017

## Tweets

1. Denver 7 News [@DenverChannel]. (2017, May 2, 4:03 PM)
2. Vaughn, K. [@writerkev]. (2017, May 2, 4:09 PM)
3. Denver 7 News [@DenverChannel]. (2017, May 2, 4:11 PM)

## Websites

1. Schlumberger Oilfield Glossary,  
[https://glossary.oilfield.slb.com/en/terms/w/working\\_interest](https://glossary.oilfield.slb.com/en/terms/w/working_interest)

2. Chevron website, <https://www.chevron.com/newsroom/2023/q3/explainer-what-is-the-dj-basin>
3. Denver 7 News, “Latest on Firestone home explosion investigation,” <https://www.facebook.com/Denver7News/videos/latest-on-firestone-home-explosion-investigation/10154807218543271/>

**Other**

1. ©2024 Center for Research in Security Prices (CRSP), The University of Chicago Booth School of Business
2. Capital IQ
3. FactSet
4. LSEG Workspace (Refinitiv/Eikon)
5. US Equity Trade, Quote & One-Minute Dataset v4.0, Copyright © Tick Data, LLC

**All other data and documents referenced in this report.**